

Process Execution

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Vision

- Provide a single plug and play protocol (standard) for data exchange between application software and DME equipment, regardless of vendor
- This protocol should apply to all types of DME equipment and all types of sensor technology

Issues

1. Overlap between I++ DME and DMIS
Part 2: dueling standards
2. A formal I++ DME framework is needed
3. I++ DME isn't a formal standard
4. I++ DME needs to be extended to handle more equipment, sensors, environment
5. Implementation barriers need to be reduced

Prioritization

- Resolve intellectual property, legal issues
- Resolve I++ DME v. DMIS Part 2 issue
- Extend I++ DME
- Establish a formal framework
- Remove barriers to implementation

Solutions

I++ DME v. DMIS Part 2

- Assess activities of I++ DME and DMIS Part 2
- IMIS will work with DMSC to resolve overlap between I++ DME and DMIS Part 2, so that we have a single solution

Need a Formal Framework

- Establish a formal framework
- Resolve intellectual property, legal issues
- Ensure long-term survivability of the group's activities
- Preserve participants' investments
- Foster the promotion and education process
- Support, coordinate and expand testing activities, e.g., NIST testbed, test suite

I++ DME Standardization

- Determine whether I++ DME should be a formal standard
- Ensure that future roadmap of I++ DME includes the request and wishes of the user community
- Move to standardize the current I++ DME 1.5 for Cartesian CMMs (no rotary tables?), as standard version 1.0
- Prepare drafts with support for portable arms, scanners, trackers, rotary tables, vision sensors, ...

Barriers to Implementation

- Establish centralized I++ DME site
 - iplusplusdme.org, ia-cmm.org, nist.gov?
- Develop open source reference implementation, conformance tests
- Consider adding equipment classes to I++ DME
- Foster training for developers, implementers
- Undertake pilot projects

Activities

Resolve IP, legal issues

- Priority = H, Duration = 1 year, Start = now
- Success = public documents produced
- Benefit = increased acceptance
- Cost = \$50K

Resolve I++ DME v. DMIS Part 2 issue

- Priority = H, Duration = 6 months, Start = now
- Success = DMIS Part 2 eliminated
- Benefit = increased acceptance, efficiency, focus

Extend I++ DME

- Priority = H, Duration = 2 years, Start = now
- Success
 - Phase 1: I++ DME supports trackers, arms
 - Other phases: vision, environment, enhancements (> 2 years)
- Benefit = increased customer base

Establish a formal framework

- Priority = M, Duration = 1 year, Start = 1 year, after IP issues resolved
- Success
 - Processes are documented and accepted
- Benefits
 - Ensure long-term survivability of the group's activities
 - Preserve participants' investments

Remove barriers to implementation

- Priority = M, Duration = 3 years, Start = now
- Success
 - Proof-of-Concept for new equipment
 - Equipment classes defined
 - Conformance tests available
- Benefits
 - Accelerated development and deployment